

Remarks

The Office Action dated March 30, 2006, and the Advisory Action dated June 6, 2006, have been carefully considered. Claim 1 has been amended to more clearly define applicant's invention. Currently, Claims 1-8 and 17-32 remain in the case with none of the claims indicated allowable.

The Office rejects Claims 1-8 and 17-32 under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 4,824,441 to Kindig. Those rejections are traversed. Reconsideration is respectfully requested in light of the currently amended Claim 1, and because the cited art simply does not disclose the limitations of applicant's invention of Claims 17-32.

Regarding the rejections of Claims 17-24, applicant respectfully submits that Kindig does not disclose applicant's *adjusting the reducing environment for a sufficient time period such that the flue gas acid dewpoint is **lowered** to a desirable level*.

Kindig's adjusting is for **raising** the acid dewpoint by increasing the formation of sulfur trioxide in the flue gas (col. 13, lines 16-22). Kindig raises acid dewpoint in an effort to maximize sulfur capture prior to sulfur being released into the atmosphere (col. 13, lines 34-38).

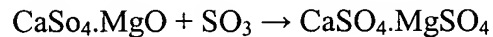
While Kindig's ultimate goals (e.g., reducing sulfur released into the atmosphere) may be similar to some of applicant's goals, Kindig clearly uses a different method (i.e., increasing sulfur trioxide rather than adjusting to lower acid dewpoint), in an attempt to achieve that goal.

Regarding the rejection of Claim 25, Kindig simply provides no indication that acid dewpoint is a parameter. In its Advisory Action, the Office points to Kindig's use of catalysts, e.g., magnesium sulfur sorbents, to argue disclosure of the claimed limitation. Applicant was unable to find, however, any disclosure of acid dewpoint as a parameter, and in particular, for example, applicant's *measuring the acid dewpoint of the flue gas* as recited in Claim 25. Because Kindig does not perform this step, it is respectfully submitted that Kindig cannot anticipate applicant's invention of Claim 25, or claims depending there from.

Regarding the rejections of Claims 1-8, the Office argues:

Kindig clearly suggests that reducible acids (e.g. sulfur oxides and nitrogen oxides) are reduced when fuel is introduced with a sulfur sorbent in an oxygen restricted combustion zone and combusted (see at least col. 6, lines 4-12).

Kindig does not, however, use applicant's claimed steps. In particular, Kindig does not disclose or suggest applicant's *maintaining the reducing environment for a sufficient time period such that reducible acids are reduced to a predetermined level to achieve a desirable acidity concentration in the flue gas*. The Office argues that Kindig's column 12, line 54 through column 13, line 23, and particularly that Equation 7, disclose applicant's *maintaining*. Equation 7 provides:



Equation 7 shows the reaction of a magnesium-based sorbent with a sulfur trioxide, i.e. it shows the binding of sulfur trioxide rather than the claimed *reduction* of sulfur trioxide.

As provided on page 3 of applicant's specification as filed (underlining added):

If the SO₃ concentration is too low, the precipitator will operate at less than optimal efficiency. On the other hand, if the SO₃ concentration is too high, the flue gas becomes highly acidic, creating a "blue plume" and contributing to acid rain.

Kindig does not teach or suggest, as recited in the currently amended claim, applicant's *reduction to a predetermined level*, or level that optimizes both precipitator efficiency and plume reduction. As stated above, Kindig is only concerned with increasing sulfur trioxide and precipitator function.

Applicant submits that by this amendment, he has placed the case in condition for allowance and such action is respectfully requested. However, if any issue remains unresolved,



Applicant's attorney would welcome the opportunity for a telephone interview to expedite allowance and issue.

Respectfully submitted,

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